

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PHUS030276WO	<b>FOR FURTHER ACTION</b> See item 4 below	
International application No. PCT/IB2004/051461	International filing date ( <i>day/month/year</i> ) 14 August 2004 (14.08.2004)	Priority date ( <i>day/month/year</i> ) 14 August 2003 (14.08.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant KONINKLIJKE PHILIPS ELECTRONICS, N.V.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 8 sheets, including this cover sheet.  
  
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report   |
| <input type="checkbox"/> Box No. II           | Priority  |
| <input type="checkbox"/> Box No. III          | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/> Box No. IV           | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI           | Certain documents cited   |
| <input type="checkbox"/> Box No. VII          | Certain defects in the international application  |
| <input type="checkbox"/> Box No. VIII         | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 740 14 35	Date of issuance of this report 21 February 2006 (21.02.2006)
	Authorized officer  Idhir Britel  Telephone No. +41 22 338 70 60

# PATENT COOPERATION TREATY

REC'D 09 MAY 2005

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From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/B2004/051461

International filing date (day/month/year)  
14.08.2004

Priority date (day/month/year)  
14.08.2003

International Patent Classification (IPC) or both national classification and IPC  
G01R31/28, G01R35/00

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS, N.V.

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2004/051461

**Box No. 1 Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE-  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2004/051461

**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, Inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-8
	No: Claims	
Inventive step (IS)	Yes: Claims	1-8
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

Reference is made to the following document:

D1: US-B1-6 223 056 (APPEL MARK J) 24 April 2001 (2001-04-24)

2. Although claims 1 and 5 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which the protection is sought. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.

Hence, claim 1 and 5 do not meet the requirements of Article 6 PCT.

Same arguments apply for claims 7 and 8.

**NOVELTY**

2. The document D1 is regarded as being the closest prior art to the subject-matter of claim 1 and shows (the references in parentheses applying to this document):  
in a test apparatus used for measuring the input and output characteristics of an amplifier,  
a method for determining test program parameters, comprising a step of  
measuring of output signal power by a power meter (see fig. 4, step 401).

The subject-matter of claim 1 differs from this known D1 in that comprises steps of  
- calculating input loss from the test apparatus power source to the input of the amplifier,  
- defining an input loss correction factor;

- calculating output loss from the amplifier output to the power meter of the test apparatus,
  - defining an output loss correction factor;
  - using the input loss correction factor to determine a real input power level;
- and using the output loss correction factor to determine a real output level.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

Same arguments apply for corresponding method claim 3 which also meets the requirements of Art. 33(2) PCT.

**2.1** The document D1 is regarded as being the closest prior art to the subject-matter of claim 5 and shows (the references in parentheses applying to this document):

- system for measuring the input and out characteristics of an amplifier, comprising: means for calculating input loss from the test apparatus power source to the input of the amplifier
- defining an input loss correction factor (see fig. 4, step 401).

The subject-matter of claim 5 differs from this known D1 in that comprises

- system for calibrating test program parameters for measuring the input and out characteristics of an amplifier
- means calculating output loss from the amplifier output to the power meter of the test apparatus, defining an output loss correction factor;
- means for using the input loss correction factor to determine a real input power level;
- means for using the output loss correction factor to determine a real output level.

The subject-matter of claim 5 is therefore new (Article 33(2) PCT).

**2.2** The document D1 is regarded as being the closest prior art to the subject-matter of claim 7 and shows (the references in parentheses applying to this document):  
used in the measuring of input and output characteristics of an amplifier, machine readable medium (220), comprising: a plurality of computer instructions, wherein the computer instructions include, calculating input loss from the test-apparatus power source to the input of the amplifier, defining an input loss correction factor (see fig. 1 and 2).

The subject-matter of claim 7 differs from this known D1 in that comprises steps of

- calculating output loss from the amplifier output to the power meter of the test apparatus,
- defining an output loss correction factor;
- using the input loss correction factor to determine a real input power level;
- using the output loss correction factor to determine a real output level;
- calibrating RF tests as a function of the input loss correction factor and the output loss correction factor, wherein the RF tests include at least one of the following: output power, gain, efficiency, and detector error, linearity, noise figure;
- indicating to the user the calibrating of RF tests is complete.

The subject-matter of claim 7 is therefore new (Article 33(2) PCT).

**2.3** The document D1 is regarded as being the closest prior art to the subject-matter of claim 8 and shows (the references in parentheses applying to this document):  
used in the measuring of input and output characteristics of an amplifier, machine readable medium (220), comprising: a plurality of computer instructions.

The subject-matter of claim 8 differs from this known D1 in that the computer instructions include steps for inserting calibrating factors into an ATE program, the steps comprising:

- a) obtaining parameters from at least one golden sample, wherein the parameters include lab gain, lab input power, and lab output power;
- b) programming parameters from the golden sample into ATE test program;
- c) obtaining measurements on ATE for the golden sample, categorize the measurements into a lookup table;
- d) calculating an uncorrected gain at small input signal for at least one small input signal value;
- e) determining a first sum of a first input loss and a first output loss, from the first sum determine a first gain change;
- f) defining a first initial output loss;
- g) calculating an initial input loss from the difference of the first gain change and the first initial output loss;
- h) setting power level of the ATE to sum of input power lab and initial input loss;
- i) measuring output power on ATE wherein output power corresponds to an input power;
- j) calculating a corrected output power, wherein the corrected output power is the sum of

output power on the ATE and initial output loss;

k) determining a degree of correlation between the corrected output power-with lab output power, wherein the degree of correlation determines inserting corrected values into the ATE test program for input power and output power or defining another initial output loss and performing steps g) through j) again.

The subject-matter of claim 8 is therefore new (Article 33(2) PCT).

2.4 Claims 2, 4 and 6 are dependent on claim 1 respectively 3 respectively 5 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

### **INVENTIVE STEP**

3. The subject-matter of independent claims 1, 3, 5, 7 and 8 is not disclosed or suggested by document D1, therefore the subject-matter of claims 1, 3, 5, 7 and 8 meets the requirements of Art. 33(3) PCT.

3.1 The same applies for the dependent claims 2, 4 and 6.

### **INDUSTRIAL APPLICABILITY**

4. The subject-matter of independent claims 1, 3, 5, 7 and 8 and the subject-matter of the dependent claims 2, 4 and 6 meets the requirements of Art. 33 (4) PCT.

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